



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/564,653

01/14/2006

Gyoon Hee Han

DI-008

1709

38051

7590

03/26/2008

KIRK HAHN

14431 HOLT AVE

SANTA ANA, CA 92705

EXAMINER

FINN, MEGHAN R

ART UNIT

PAPER NUMBER

1614

MAIL DATE

DELIVERY MODE

03/26/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,653	<b>Applicant(s)</b> HAN ET AL.	
	<b>Examiner</b> MEGHAN FINN	<b>Art Unit</b> 1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on January 18, 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-6, 17 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) 23-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-6, 17, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. <u>  /  /  </u>                            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/27/07; 3/27/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant's election without traverse of group II (claims 4-6, and 17), along with N-hydroxy-3-[1-(2-naphtalene-2-yl-ethyl)-2-oxo-2,5-dihydro-1H-pyrrol-3-yl]-propionamide as the elected compound, and Breast cancer as the species of cancer, in the reply filed on January 18, 2008 is acknowledged.

The elected species is free of the art, and thus the search was expanded to include other aromatic groups for R (still formula III) and to include both single and double bonds on the ring.

#### ***Specification Objections***

The disclosure is objected to because of the following informalities: The title is not descriptive; a suggested title would be "Novel 2-oxo-heterocyclic compounds and pharmaceutical compositions". Appropriate correction is required.

#### ***Claim Objections***

Claim 5 is objected to because of the following informalities: There is a misspelling in claim 5, "thiopenyl" should be spelled "thiophenyl". Appropriate correction is required.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 4-6, 17, and 21-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, and 4-6 of copending Application No. 10/557,085. Although the conflicting claims are not identical, they are not patentably distinct from each other because while the language is slightly different both claim 4 of the instant application and claim 4 of 10/557,085 claim a compound of formula III (same variable options), and a pharmaceutically acceptable salt or isomer. The instant application calls this a “pharmaceutical composition” while 10/557,085 does not mention that in claim 4, however they are both comprising the exact same components and thus it would be obvious to one of ordinary skill in the art that they are claiming the same thing. Claim 1 of 10/557,085 also conflicts with claim 4 of the instant application because the compound of formula I (of 10/557,085) encompasses the compound of formula III and thus also conflicts with claim 4 of the instant application.

Claim 5 of 10/557, 085 and the instant claim 5 both claim the compound of their respective claim 4, where the R group is selected from a specific set, which is the same in both claim 5s, and thus the only difference between them lies in the wording of claim 4 as discussed above.

Claim 6 of the instant case and claim 6 of 10/557,085 both claim the same 8 specific compounds, and claim 21 of the instant application claims 1 specific compound of those 8 and thus would conflict with claim 6 of 10/557,085 as well.

Claims 17 and 22 claim the pharmaceutical composition of claim 4, wherein the cancer disease to be treated is breast cancer. Since the claims are to a composition,

Art Unit: 1614

the intended use does not hold patentable weight, and thus claims 17 and 22 conflict with claims 1 and 4 of 10/557,085 as discussed above for claim 4 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-5, 17, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et al. (US 5,712,300).

Claims 4-5 claim a pharmaceutical composition comprising a compound of formula III and in claim 5 the R group is limited to thiophenyl, naphthyl, pyrrolyl, furyl, and biphenyl groups. Jacobsen et al. teaches compounds of formula I (column 2, lines 10-20) which encompasses many of the compounds claimed by applicant's formula III of claim 4. For example, if R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> and R<sub>10</sub> are all H, Y and X are -(CH<sub>2</sub>)-, and R<sub>3</sub> is c, d, or e then the structure would be equivalent to the instant formula III, where X is NHOH, n is 1, and R is a lower alkyl and an aromatic aryl group, and no double bond is present. In example 1 (column 20, lines 27-40) Jacobsen et al. teach a compound that differs only from those claimed by the additional methylpropyl group. Jacobsen et al. teach the many of the compounds claimed by claim 4, including those with a biphenyl R group (claim 5), and one of ordinary skill in the art at the time of the invention would realize that the compounds that vary slightly (like the addition of a methylpropyl group) would have similar effects to those claimed in the instant application and thus claims 4 and 5 are unpatentable over Jacobsen et al.

### ***Conclusion***

Art Unit: 1614

No claims are allowed.

The elected species, N-hydroxy-3-[1-(2-naphtalene-2-yl-ethyl)-2-oxo-2,5-dihydro-1H-pyrrol-3-yl]-propionamide is free of the art, however there is a double patenting rejection with application 11/557,085 as discussed above.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meghan Finn whose telephone number is (571) 270-3281. The examiner can normally be reached on 7:30am-5pm Mon-Thu, 7:30am-4pm Friday (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Application/Control Number: 10/564,653

Page 8

Art Unit: 1614

Meghan Finn

/Ardin Marschel/

Supervisory Patent Examiner, Art Unit 1614